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observations made in 1849 at Hamburg, Kremsmünster, and Markree; and one extra-meridional observation made at Markree, 1850, Oct. 21. This last, though taken with great care, is uncertain, from the strong moonlight; but it is the best I could obtain. The elements, corrected for the perturbations by the *Earth*, *Mars*, *Jupiter*, and *Saturn*, and reduced to the mean equinox of the epoch, are for the instantaneous ellipse:—

1850, Nov. 26·0, G.M.T.

	° ′ ″
M	35 50 6·88
ϖ−☊	2 17 54·85
☊	68 29 42·75
i	5 35 42·04
ϕ	7 1 29·02
μ''	962″·13641

"It only remains to carry up the perturbations to the time of the opposition, and prepare the ephemeris, which I hope to be able to furnish you with a copy of in a few weeks."

BOND'S COMET.

Mr. G. P. Bond, Assistant at the Observatory of Cambridge, United States, discovered a telescopic comet on the 29th of August last. It was found independently by Mr. Brorsen at Senftenburg, in Bavaria, on the 5th of September; by M. Mauvais at Paris, and Mr. Robertson at Markree, on the 9th; and by Dr. Clausen at the Observatory of Dorpat, on the 14th. Mr. G. P. Bond has detected seven or eight comets, but the present is the first which bears his name, as in every other instance a prior discovery was recognised. The comet was observed by the American astronomers till the end of last month.

Observations.

CAMBRIDGE, U.S. (Professor Bond.)

1850.	Cambridge M.T. h m s	R.A. 1850·0. h m s	Dec. 1850. ° ′ ″	Star of Comp.
Aug. 29	11 9 45	3 24 49·67	+58 0 37·9	*a*
30	9 44 43	3 35 45·69	58 7 19·2	*b*
31	8 23 19	3 47 20·86	58 10 17·1	*c*
Sept. 2	10 0 38	4 14 43·20	58 1 24·0	*d*
3	10 17 38	4 29 4·09	57 47 39·3	*e*
8	13 28 0	5 48 22·23	54 24 47·2	*f*
	14 33 0	49 5·06	21 52·6	*g*
10	12 46 38	6 19 31·45	51 53 11·0	*h*
11	10 57 2	6 33 46·17	50 26 31·7	*i*
13	12 28 12	7 4 21·97	46 36 30·2	*k*

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1850.	Cambridge M.T. h m s	R.A. 1850·0. h m s	Dec. 1850. ° ′ ″	Star of Comp.
Sept. 20	15 57 40	8 30 58·71	+28 20 20·9	*l*
21	16 38 4	8 40 44·41	25 24 55·1	*m*
Oct. 1	16 47 48	9 54 9·03	+ 0 36 44·1	*n*
Oct. 28	17 40 11	12 1 41·35	−22 22 31·2	β Corvi, 6 obs.

"The rest of the October observations cannot be reduced until the places of the comparison stars are determined.

Stars of Comparison.

1850.		R.A. 1850·0 h m s	Decl. 1850·0 ° ′ ″	Mag.	
Aug. 29	*a*	3 22 44·34	+58 4 21·3	8·9	Arg. Zone 57, No. 125
30	*b*	34 13·17	58 0 54·5	9·10	
31	*c*	3 46 11·04	58 10 46·4	8·9	Arg. Zone 68
Sept. 2	*d*	4 11 7·70	58 7 55·5	8·9	
3	*e*	4 29 8·53	57 55 30·5	15	
8	*f*	5 47 40·92	54 22 15·2	7·8	Arg. Zone 174
	g	5 47 10·63	54 15 58·1	3	B.A.C. 1885
10	*h*	6 18 42·86	51 52 10·4	8·9	
11	*i*	6 34 40·72	50 31 42·1	7	Arg. Zone 76, No. 119
13	*k*	7 6 26·67	43 25 2·4	8	H. C. 14014
20	*l*	8 30 34·70	28 26 10·4	9	
21	*m*	8 39 22·43	25 24 52·1	9	
Oct. 1	*n*	9 49 43·33	+ 0 36 35·0	8	Weisse, 1076

URHAM. Fraunhofer Equatoreal. (Mr. R. C. Carrington.)

1850.	Greenwich M.T. h m s	App. R.A. h m s	 s	App. N.P.D. ° ′ ″	 ″	No. of Comps. in R.A.	No. of Comps. in N.P.D.	Set.
ept. 13	13 44 54·9	7 2 18·10	−0·056 *p*	43 6 0·0	−0·543 *p*	9	3	(1)
16	13 45 23·2	7 41 46·73	0·050 *p*	49 58 2·0	0·654 *p*	5	5	(2)
17	15 1 48·9	7 55 38·09	−0·047 *p*	52 40 59·5	−0·576 *p*	12	4	(3)

p = Equat. Hor. parallax in seconds of *arc* in both cases.

Assumed Apparent Places of Stars of Comparison.

Name.	R.A. h m s	N.P.D. ° ′ ″	Set.
Lalande, 14384	7 17 10·06	43 10 58·4	(1)
Anonymous, 7th Magnitude	7 42 16·49	50 8 27·4	(2)
Lalande, 15637	7 53 34·16	52 26 57·4	(3)

"The two stars from Lalande are brought up by precession, without modification, from the *Hist. Cél.*

"The anonymous star depends on a single comparison with 63 *Aurigæ*. It requires re-observation. It is preceded by a star a little north of it by 45ˢ, and followed by another, also north, in 30ˢ: both these comparisons being of 7·8th magnitude.

"The comet was best seen here on September 17. I then thought it a little elongated in the north following direction: no nucleus was shown by this instrument."

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PARIS. (M. Mauvais.)

1850.	Paris M.T. h m s	R.A. h m s	Dec. ° ′ ″
Sept. 9	13 27 2	6 1 8·63	+53 28 20

LIVERPOOL. Equatoreal. (Mr. Hartnup.)

1850.	Green. M.T. h m s	R.A. h m s	Log $\frac{p}{P}$	N.P.D. ° ′ ″	Log $\frac{q}{P}$	Star of Comp. B.A.C.
Sept. 13	12 43 56·8	7 1 41·85	−8·7518	43 1 2·2	−9·8171	2361
	13 24 14·7	7 2 6·14	−8·7644	43 4 20·6	−9·7647	—

The observations are corrected for refraction.

The following place of the star of comparison for 1850·0, is taken from the Radcliffe Observations.

	Mean R.A. h m s	Mean N.P.D. ° ′ ″
B.A.C. 2361	7 4 41·28	42 29 59·3

I. Approximate elements by Mr. G. P. Bond, from the earliest Cambridge (U.S.) Observations.

Per. Pass. 1850, October 19, 3677 Greenwich M.T.
Node .... 205° 53′
Per 89 22
Incl. 40 17
Per. Dist. ...... 0·5642 Motion direct.

II. By Mr. George Rümker.*

T .... 1850, October 19, 33837, Greenwich M.T.
ϖ .... 89° 13′ 41″
☊ 20 1 31
i 40 3 45
Log q . 9·752555 Motion direct.

III. Elements by Mr. Graham from the Senftenberg observation of the 5th, and Markree places of the 9th and 14th, with the Paris observation of the 9th.

		Greenwich M.T.	R.A. ° ′ ″	Decl. ° ′ ″
Normals.	Sept.	5·44407	73 55 26	+57 3 10
		9·55935	90 17 19	53 28 8
		14·45529	108 41 32	+45 1 56

Aberration and parallax allowed for.

Elements.

T .... 1850, October 19, 3178, Greenwich M.T.
ϖ .... 89° 3′ 5″ } App. Eq. Sept. 9.
☊ .... 206 1 47 }
i 39 45 44
Log q . 9·75336 Motion direct.

$$x = [9{\cdot}73554] \sin(173^\circ 35' 55'' + v) : \cos^2 \tfrac{1}{2} v$$
$$y = [9{\cdot}74247] \sin(\ 87\ 24\ \ 7 + v) : \cos^2 \tfrac{1}{2} v$$
$$z = [9{\cdot}30650] \sin(213\ 45\ 40 + v) : \cos^2 \tfrac{1}{2} v$$

The elements differ from the middle observation 3′ in right ascension, agreeing in declination.

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* Accompanied by an approximate ephemeris.